

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 4, 18, 28, 47, 49, 51 and 55 in accordance with the following:

1. (Currently Amended) A method of recording data on an optical storage disc in a certain recording format, the method comprising:

selecting a disc recording format from a plurality of disc recording formats to record the data on a single surface of a single side of the optical storage disc independent of a type of the optical storage disc;

recording the data on the single surface of the single side of the optical storage disc in the selected disc recording format; and

adding information regarding the selected one of the plurality of disc recording formats on the optical storage disc.

2. (Previously Presented) The method of claim 1, wherein the selected disc recording format to record the data is selected by a user.

3. (Previously Presented) The method of claim 1, wherein the disc recording format information is recorded in an area adjacent an area in which the data is recorded.

4. (Currently Amended) A method of recording data on an optical storage medium in a plurality of disc recording formats, the method comprising:

selecting separate ones of the plurality of disc recording formats for each of the corresponding data to record each of the data on the optical storage medium, the optical storage medium being a single surface of a single side of an optical storage disc;

recording each of the data on the optical storage medium in the corresponding selected disc recording format; and

adding information regarding the selected disc recording format to the optical storage medium whenever each data is recorded in the corresponding one of the selected disc recording formats.

5. (Previously Presented) The method of claim 4, wherein the selected disc recording format corresponding to each of the data is selected by a user.
6. (Previously Presented) The method of claim 4, wherein the disc recording format information is recorded in an area adjacent each area in which the data is recorded.
7. (Original) The method of claim 4, further comprising, after completion of the data recording, preparing and recording file systems.
8. (Original) The method of claim 7, wherein the file system is prepared and recorded every time new data is recorded on the optical storage medium.
9. (Original) The method of claim 7, wherein the file system is prepared and recorded after completing recording of the data in an entire data area of the optical storage medium.
10. (Previously Presented) The method of claim 8, wherein:
the file system comprises directories for the respective disc recording formats,
each of the directories comprises information regarding attributes of each of the data in the corresponding disc recording format, and
the attribute information includes a data file name, disc recording format information, and a starting address.
11. (Previously Amended) A method of reproducing data from an optical storage disc in which data is recorded using a method of claim 1, the method comprising:
reading disc recording format information regarding desired data from an information area of the optical storage disc distinguished from a plurality of disc recording format information; and
reproducing the desired data based on the read disc recording format information.
12. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 7, the method comprising:
reading data for a file system from the optical storage medium;

reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file system; and

reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information.

13-17. (Cancelled)

18. (Currently Amended) An optical storage disc comprising:

a single side of the disc on which a plurality of data are sequentially recorded on a single surface of the disc in various corresponding disc recording formats such that data of each disc recording format is recorded in a different radial portion of the disc; and

a predetermined area of the single side of the disc in which file system information is recorded,

wherein the file system information includes information regarding the various disc recording formats and starting addresses of each of the data.

19. (Previously Presented) The method of claim 9, wherein:

the file system comprises directories for the respective disc recording formats, each of the directories comprises information regarding attributes of each of the data in the corresponding disc recording format, and

the attribute information includes a data file name, disc recording format information, and a starting address.

20. (Previously Amended) A method of reproducing data from an optical storage disc in which data is recorded using a method of claim 2, the method comprising:

reading disc recording format information regarding desired data from an information area of the optical storage disc distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

21. (Previously Amended) A method of reproducing data from an optical storage disc in which data is recorded using a method of claim 3, the method comprising:

reading disc recording format information regarding desired data from an information

area of the optical storage disc distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

22. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 4, the method comprising:

reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

23. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 5, the method comprising:

reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

24. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 6, the method comprising:

reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information; and

reproducing the desired data based on the read disc recording format information.

25. (Previously Presented) A method of reproducing data from an optical storage medium in which data is recorded using a method of claim 8, the method comprising:

reading data for a file system from the optical storage medium;

reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file system; and

reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information.

26. (Previously Presented) A method of reproducing data from an optical storage

medium in which data is recorded using a method of claim 9, the method comprising:

reading data for a file system from the optical storage medium;

reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file system; and

reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information.

27. (Cancelled)

28. (Currently Amended) An optical apparatus that transfers data with respect to an optical storage medium, the apparatus comprising:

a pickup that optically transfers encoded data with respect to the optical storage medium;

a data converter which converts a received one of encoded data and data into the other one of the encoded data and the data according to a determined one of a plurality of different recording formats; and

a controller which determines a disc recording format selected from a plurality of different disc recording formats and which corresponds to a selected one of the data, controls the data converter to convert the received one of the encoded data and the data according to the determined one of the plurality of different disc recording formats, and controls the pickup to optically transfer the encoded data,

wherein the controller controls the pickup to transfer disc recording format information regarding the determined disc recording format with respect to a first region of the optical storage medium, and controls the pickup to transfer the selected data with respect to a second region of the optical storage medium other than the first region, and

the first region includes another disc recording format information regarding another one of the plurality of different disc recording formats, and the second region has other data encoded in the another one of the plurality of different disc recording formats, the first and second regions being located on a single surface of a single side of an optical disc.

29. (Cancelled)

30. (Previously Presented) The optical apparatus of claim 28, wherein the first region has a common border with the second region.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Previously Presented) The optical apparatus of claim 28, wherein the plurality of different disc recording formats includes disc recording formats for at least two of digital versatile disk (DVD) data, MP3 data, video CD (VCD) data, MPEG4 data, video recording (VR) data, MPEG2 data, audio compression 3 (AC3) data, and linear pulse code modulation (LPCM) data.

37. (Previously Presented) The optical apparatus of claim 28, wherein:
the data converter comprises a decoder which decodes the encoded data read from the optical storage medium into the data according to the determined one of the plurality of different disc recording formats; and

the controller reads disc recording format information corresponding to the selected one of the data from the optical storage medium to determine the one the plurality of different disc recording formats, and controls the decoder to decode the encoded data to provide the selected data in the determined one of the plurality of different disc recording formats.

38. (Previously Presented) The optical apparatus of claim 37, wherein the controller reads a file system from the optical storage medium in which the determined disc recording format information is stored in order to read the recording format information.

39. (Previously Presented) The optical apparatus of claim 38, wherein the file system further comprises another disc recording format information corresponding to another one of the data encoded using another one of the plurality of different disc recording formats.

40. (Previously Presented) The optical apparatus of claim 28, wherein:

the data converter comprises an encoder which encodes the data into the encoded data to be written to the optical storage medium according to the determined one of the plurality of different disc recording formats; and

the controller controls the encoder to encode the selected one of the data in the determined one of the plurality of different disc recording formats, and controls the pickup to record disc recording format information regarding the determined disc recording format and the encoded data on the optical storage medium.

41. (Previously Presented) The optical apparatus of claim 40, further comprising a user interface through which a command is received to determine the one of the plurality of different disc recording formats for use in encoding the selected one of the data.

42. (Previously Presented) The optical apparatus of claim 40, wherein the controller further prepares a file system in which the determined disc recording format information is stored and controls the pickup to record the prepared file system.

43. (Previously Presented) The optical apparatus of claim 42, wherein the file system further comprises another disc recording format information corresponding to another one of the data encoded using another one of the plurality of different disc recording formats.

44-46. (Cancelled)

47. (Currently Amended) A computer readable medium encoded with processing instructions for implementing a method of recording data on an optical disc in a disc recording format performed by a computer, the method comprising:

selecting a disc recording format from a plurality of disc recording formats to record the data on the optical disc;

recording the data on a single surface of a single side of the optical disc in the selected disc recording format;

adding disc recording format information regarding the selected one of the plurality of disc recording formats to the single surface of the single side of the optical disc;

selecting another one of the plurality of disc recording formats for additional data to be recorded on the optical disc;

recording the additional data on a the single surface of the single side of the optical disc

in the corresponding another selected disc recording format; and

adding additional disc recording format information regarding the another selected disc recording format to the single surface of the single side of the optical disc.

48. (Previously Amended) The computer readable medium of claim 47, wherein the method further comprises, after the data and the additional data area recorded, preparing and recording on the single side of the optical disc a file system including the disc recording format information and the additional disc recording format information.

49. (Currently Amended) A computer readable medium encoded with processing instructions for implementing a method of reproducing data from an optical disc performed by a computer, the method comprising:

reading disc recording format information corresponding to selected data from an information area located on a single surface of a single side of the optical disc distinguished from a plurality of disc recording format information corresponding, respectively, to unselected data also located on the single surface of the single side of the optical disc, but in a different radial portion of the optical disc; and

reproducing the selected data based on the read disc recording format information.

50. (Previously Amended) The computer readable medium of claim 49, wherein: the reading the disc recording format information comprises:

reading a file system from the optical disc, the file system having files for a plurality of different disc recording information for corresponding different disc recording formats, and

reading the disc recording format information distinguished from the plurality of disc recording format information and a starting address corresponding to the selected data from the file system; and

the reproducing the selected data comprises reading the selected data from the corresponding starting address and decoding the selected data based on the corresponding disc recording format information.

51. (Currently Amended) A method of transferring data with respect to an optical storage medium comprising:

converting a received one of data and encoded data to another one of the data and the

encoded data using a first disc recording format; and
transferring the encoded data with respect to the optical storage medium,
wherein the first disc recording format is independent of a type of the optical storage medium on which the encoded data is recorded, and
the optical storage medium being a single surface of a single side of an optical storage disc and of the type having a second disc recording format not compatible with the first disc recording format.

52. (Cancelled)

53. (Previously Presented) The method of claim 51, wherein:
the converting the received one of the data and the encoded data comprises encoding the data in the first disc recording format, and
the transferring the encoded data comprises recording the encoded data on the optical storage medium.

54. (Previously Presented) The method of claim 51, wherein:
the converting the received one of the data and the encoded data comprises decoding the encoded data from the first disc recording format, and
the transferring the encoded data comprises reading the encoded data from the optical storage medium.

55. (Currently Amended) A method of recording data in a plurality of various recording formats on an optical disc, the method comprising:
recording first data in a first recording format on a first radial portion of the disc and second data in a second recording format on a second radial portion of the disc located on the same side of the optical disc but in a radial location different than the first radial portion, the data being recorded on a single disc surface regardless of a type of the optical disc.

56. (Previously Amended) The method of claim 55, further comprising:
recording format information of the first data in a first information area and format information of the second data in a second information area, the first and second information area being located on a same side of the optical disc as the data.

57. (Previously Amended) The method of claim 55, wherein the first recording format and the second recording format are selected by a user.

58. (Previously Amended) The method of claim 56, wherein the plurality of various recording formats comprise a DVD-video format, an MP3 format, a VCD format, an MPEG4 format, a DVD format and a VR format.

59. (Previously Amended) The method of claim 56, wherein data in the plurality of various recording formats is sequentially recorded on the single side of the optical disc.